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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,445	03/12/2007	Deug Hee Lee	9988.244.00	4331
30827 7590 10/13/2010 MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006				
EXAMINER WHATLEY, KATELYN B				
ART UNIT		PAPER NUMBER		
1714				
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10/13/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/555,445

Applicant(s)

LEE ET AL.

Examiner

KATELYN B. WHATLEY

Art Unit

1714

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 and 23-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-22 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
- _____ Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- _____ Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The action is in response to applicant's amendments and arguments dated 8/11/2010.
2. Claims 10-22 and 29 were rejected in the previous action.
3. Claims 10-22 and 29 were amended in the amendment dated 8/11/2010.
4. Claims 1-29 are currently pending, with claims 1-9 and 23-28 withdrawn from consideration.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
7. Claims 10-12, 14-22 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPA 20020133886 to SEVERNS ET AL in view of USPA 20040187527 to KIM ET AL.

8. With regard to claim 10, SEVERNS teaches a method for operation a laundry device (**paragraph 0018 and figures 6-8**), by step supplying steam (**paragraphs 102 and 137**) inside of a drum where laundry is introduced (**figures 6-8**), and rotating the drum at a high speed (**figures 6-8**).

9. SEVERNS does not teach the steam soaking the laundry. However, it is known in the art to have the steam soak the laundry. Thus, KIM teaches a washing cycle that has steam soaking laundry to rapidly soak clothes and sterilize, which would improve washing efficiency (**paragraph 0002**). One with ordinary skill in the art at the time the invention was made would have found it obvious to modify the method of washing using steam taught by SEVERNS to further include the soaking of the clothes taught by KIM to improve the efficiency of the method.

10. The teaching of SEVERNS/KIM does not explicitly teach stopping steam supply after a predetermined period of time. However, SEVERNS teaches that steps have predetermined times (**figures 6-10 and paragraph 0143**). One with ordinary skill in the art at the time the invention was made would have found it obvious to have a predetermined wash time for supplying steam and to stop the application of steam at the end of the wash time.

11. The teaching of SEVERNS/KIM does not explicitly state that the steam soaked contaminants would be centrifugally separated from the laundry. However, since SEVERNS teaches rotating the drum with laundry, a skilled artisan would have known that centripetal acceleration would cause the contents of the drum to separate according to density. One with ordinary skill in the art would know that the contaminates

would have a different density than the laundry, therefore making it inherent that the contaminates would centrifugally separate from the laundry during high speed rotations.

12. With regard to claim 11, SEVERNS modified by KIM teaches the method according to claim 10, but does not explicitly teach the temperature of the supplied steam being higher temperature than the laundry may be sterilized. However, one of ordinary skill in the art would have known that SEVERNS/KIM would be supplying the steam into a drum with a lower temperature than the steam, therefore the steam would lose energy and heat by the time it contacted the laundry. The steam would have to be supplied at a higher temperature than the laundry should be sterilized to achieve effected cleaning. One with ordinary skill in the art at the time the invention was made would have known to use a higher temperature steam at the exit to achieve a thorough cleaning.

13. With regard to claim 12, SEVERNS modified by KIM teaches the method according to claim 10. Furthermore, KIM teaches the laundry being fully soaked with steam (**paragraph 0002**) which improves the efficiency of the washing cycle. One with ordinary skill in the art at the time the invention was made would have found it obvious to modify the method of washing using steam taught by SEVERNS to further include the soaking of the clothes taught by KIM to improve the efficiency of the method.

14. With regard to claim 14, SEVERNS modified by KIM teaches the method according to claim 10. Furthermore, SEVERNS teaches rotating the drum alternately at a lower speed than speed for separating contaminates, to discharge steam in the drum (**figures 6-10**).

15. With regard to claim 15, SEVERNS modified by KIM teaches the method according to claim 14 but does not teach the speed of rotation for the discharge of steam is lower than 100RPM; however, since applicants did not provide any criticality regarding the recited parameter, one skilled in the art would have found obvious to optimize the speed of the drum rotation for optimum result, consult *In re Boesch and Slaney* 205 USPQ 215 (CCPA 1980).

16. With regard to claim 16, SEVERNS modified by KIM teaches the method according to claim 14 and teaches the time for discharge the steam is shorter than the time for rotating the drum at high speed (**figure 10**).

17. With regard to claim 17, SEVERNS modified by KIM teaches the method according to claim 10. Furthermore, SEVERNS teaches spraying washing water in the drum before the steam is supplied into the drum (**paragraphs 0197-0199**).

18. With regard to claim 18, SEVERNS modified by KIM teaches the method according to claim 17. Furthermore, SEVERNS teaches where the wash water is in cold water state and not boiled (**paragraphs 0192, 0197-0199**).

19. With regard to claim 19, SEVERNS modified by KIM teaches the method according to claim 17. Furthermore, SEVERNS teaches spraying fluid detergent to the laundry before the wash water spraying (**figures 6-10**).

20. With regard to claim 20, SEVERNS modified by KIM teaches the method according to claim 19. Furthermore, SEVERNS teaches where the detergent is a concentrated detergent in a fluid spray state (**applicator preferably a spray nozzle, paragraph 0080**).

21. With regard to claim 21, SEVERNS modified by KIM teaches the method according to claim 19. Furthermore, SEVERNS teaches rinsing the laundry by spraying steam or washing water in the drum after the fluid detergent spraying (**paragraph 0080 and 0102**).

22. With regard to claim 22, SEVERNS modified by KIM teaches the method according to claim 10. Furthermore, SEVERNS teaches where in the drum in steam supplying is rotated at a speed less than 100RPM (**figures 9 and 10 and paragraph 0118**).

23. With regard to claim 29, SEVERNS modified by KIM teaches the method according to claim 14. Furthermore, SEVERNS teaches spraying washing water in the drum before the steam is supplied into the drum (**paragraphs 0197-0199**).

24. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. USPA 20020133886 to SEVERNS ET AL in view of USPA 20040187527 to KIM ET AL and further in view of USPA 20050000033 to PARK ET AL.

25. With regard to claim 13, SEVERNS modified by KIM teaches the method according to claim 10 but does not explicitly teach the rotation speed for separating contaminants being 2000~4000RPM. However, PARK teaches rotating the drum at a speed of 1000~3000RPM to disperse air throughout the drum. One with ordinary skill in the art would have known to modify the cleaning method of SEVERNS/KIM to include the rotation speed taught by PARK that would allow for the steam to disperse and clean the laundry.

Response to Amendments

26. The objections to the specification and drawings, in relation to the abstract and drawings respectively, made in the office action dated 5/11/2010 have been withdrawn in view of the amendment to the application.
27. The objections to the claims made in the office action dated 5/11/2010 have been withdrawn in view of the amendment to the claims.
28. The claim rejections of claims 14 and 22 under 35 USC 112 second paragraph, made in the office action dated 5/11/2010, have been withdrawn in view of the amendment to the claims.

Response to Arguments

29. Applicant's arguments with respect to claims 10-22 and 29 have been considered but are moot in view of the new ground(s) of rejection. As such, claims 10-22 and 29 stand rejected.
30. With regards to applicant's arguments that SEVERNS fails to teach the soaking of the laundry with steam on page 9 paragraph 2: SEVERNS teaches the applications of steam in a method of washing, but does not teach the use of the steam to soak and wash, it is noted that the combined teaching of SEVERNS/KIM in fact does teach this limitation, as indicated in paragraph 9 of the office action. Applicants are reminded that the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d
31. With regards to applicant's arguments that SEVERNS fails to teach the rotation of the drum at a high speed to separate the contaminants on page 9 paragraph 3:

Although SEVERNS teaches that the rotation of the drum separates the LCF, it would have been obvious to one of ordinary skill in the art that the centrifugal force provided by the high speed rotation would have also separated the steam soaked contaminants, given that they would have a different density than the laundry. The motivation for the processing step provides no new or unexpected results and SERVERNS/KIM clearly teaches the processing step which provides the same results as claimed. One with ordinary skill in the art at the time the invention was made would have known that the high speed rotation taught by SEVERNS would have centrifugally separated the contaminants soaked with steam from the laundry.

Conclusion

32. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATELYN B. WHATLEY whose telephone number is (571)270-5545. The examiner can normally be reached on Monday-Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on (571)272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KATELYN B WHATLEY/
Examiner, Art Unit 1714
/Michael Kornakov/
Supervisory Patent Examiner, Art Unit 1714